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10/092,770

03/06/2002

Rotem Cooper

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23696 7590 08/08/2008  
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EXAMINER

DANIEL JR, WILLIE J

ART UNIT

PAPER NUMBER

2617

NOTIFICATION DATE

DELIVERY MODE

08/08/2008

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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|                              |  |                                      |  |
|------------------------------|--|--------------------------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/092,770   | <b>Applicant(s)</b><br>COOPER, ROTEM |  |
|                              | <b>Examiner</b><br>WILLIE J. DANIEL JR | <b>Art Unit</b><br>2617              |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 27 June 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,2,7-21,24 and 25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,7-21,24 and 25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### DETAILED ACTION

1. This action is in response to applicant's amendment filed on 27 June 2008. **Claims 1-2, 7-21, and 24-25** are now pending in the present application and **claims 3-6 and 22-23** are canceled. This office action is made **Non-Final**.

### *Continued Examination Under 37 CFR 1.114*

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 27 June 2008 has been entered.

### *Claim Rejections - 35 USC § 102*

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

**Claims 1-2, 7-21, and 24-25** are rejected under 35 U.S.C. 102(e) as being anticipated by

**Bamburak et al.** (hereinafter Bamburak) (**US 2005/0113089 A1**).

Regarding **claim 1**, Bamburak discloses a method of selecting a desirable system from a list of wireless communications systems stored in mobile communication device (10)

which reads on the claimed “mobile station” (see pg. 2-3, [0026]; Figs. 3 and 9-11),  
comprising the steps of:

maintaining, in the mobile communication device (10) which reads on the claimed  
“mobile station”, system priority data based on acquisition/registration attempts by the  
mobile station (10) with wireless communication systems, the system priority data including  
historical statistical information regarding the acquisition/registration attempts by the mobile  
station (10) (see pgs. 2-3, [0026-0027]; pg. 3, [0028, lines 10-12]; pg. 4, [0029, lines 94-97];  
Figs. 6-10);

calculating, in the mobile station, priority criteria from the system priority data to  
determine desirability levels for respective wireless communication systems (see pgs. 2-3,  
[0026-0027]; Figs. 6-10), where the mobile station includes a master search schedule in  
which preferred service provider lists are optimized from the master search schedule (see pg.  
5, [0034-0039]; pg. 3, [0028, lines 10-12]; pg. 4, [0029, lines 94-97]; pgs. 5-6, [0032, lines 1-  
33]; pgs. 2-3, [0026-0027]; Figs. 7-10);

wherein the priority criteria is used to generate and store a priority data summary table in  
the mobile station (see pg. 4, [0029, lines 94-97]; pg. 5, [0035, 0039]; Figs. 3 and 6-10);

selecting, by the mobile station (10), a group of wireless communications systems from  
the list in accordance with a predetermined system selection procedure, the group of wireless  
communications systems having a first system acquisition order (see pg. 5, [0033, lines 1-  
4,21-23; 0034]; pg. 3, [0028, lines 10-12]; Figs. 8-10);

reprioritizing, by the mobile station (10), the group of wireless communications systems  
in accordance with the priority criteria stored in the priority data summary table, the

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reprioritized group of wireless communications systems having a second system acquisition order based upon respective system desirability levels (see pg. 5, [0034-0039]; Figs. 8-10); and

attempting, by the mobile station (10), to acquire a desirable system based on the reprioritized group of wireless communications systems (see pg. 2, [0010]; pg. 3, [0028, lines 1-3,10-12]; pg. 5, [0034-0039]; Figs. 8-10).

Regarding **claim 2**, Bamburak discloses the method of claim 1 wherein the list of wireless communications systems is a preferred roaming list including a geographic region identifier (see pg. 4, [0029, lines 94-97]; Fig. 2), wherein the step of selecting a group of wireless communications systems comprises the steps of:

determining, by the mobile station (10), a current geographic region of the mobile station (10) (see Fig. 2); and

searching, by the mobile station (10), the preferred roaming list for wireless communications systems having a geographic region identifier that corresponds to the current geographic region of the mobile station (10) (see pg. 4, [0029, lines 94-97]; Fig. 2); and

wherein the first system acquisition order is dictated by the relative order of the selected wireless communications systems in the preferred roaming list (see pg. 5, [0034-0039]; pg. 3, [0028, lines 10-12]; pg. 4, [0029, lines 94-97]; Figs. 8-10).

Regarding **claim 7**, Bamburak discloses the method of claim 1 wherein the step of maintaining further comprises the steps of:

detecting, by the mobile station (10), a communications event for a currently selected wireless communications system, the currently selected wireless communications system having a corresponding system identifier (see pg. 5, [0034-0039]; Figs. 3 and 7-10); and updating, by the mobile station, an entry in the system priority data to reflect the occurrence of the detected communications event, the updated entry including the corresponding system identifier (see pg. 5, [0034-0039]; Figs. 3 and 7-10).

Regarding **claim 8**, Bamburak discloses the method of claim 7 wherein the historical statistical information further includes information regarding system acquisition failures and system access failures (see pg. 5, [0034-0039]; Figs. 3 and 7-10).

Regarding **claim 9**, Bamburak discloses the method of claim 7 wherein the corresponding system identifier includes a mode and a frequency (see pg. 5, [0034-0039]; Figs. 3 and 7-10).

Regarding **claim 10**, Bamburak discloses the method of claim 7 wherein the step of updating further comprises calculating, by the mobile station, an occurrence rate of the detected event for the currently selected wireless communications system and storing the calculated occurrence rate (see pg. 5, [0034-0039]; Figs. 3 and 7-10).

Regarding **claim 11**, Bamburak discloses the method of claim 10 wherein the detected event is a successful signal acquisition and the calculated occurrence rate is a signal acquisition success rate (see pg. 5, [0034-0039]; Figs. 3 and 7-10).

Regarding **claim 12**, Bamburak discloses the method of claim 10 wherein the detected event is a failed system access attempt and the calculated occurrence rate is a system access failure rate (see pg. 5, [0034-0039]; Figs. 3 and 7-10).

Regarding **claim 13**, Bamburak discloses the method of claim 1 wherein the step of reprioritizing comprises sorting, by the mobile station, the group of wireless communications systems in accordance with the priority criteria (see pg. 5, [0034-0039]; Figs. 3 and 7-10).

Regarding **claim 14**, Bamburak discloses the method of claim 1 wherein, if the attempted system acquisition and access fails, the step of attempting is repeated with the next system in the reprioritized group (see pg. 5, [0034-0039]; Figs. 3 and 7-10).

Regarding **claim 15**, Bamburak discloses a method of maintaining system priority data in a mobile station (10) (see pg. 5, [0034-0035]; pgs. 2-3, [0026-0027]; Figs. 3 and 8-10) comprising the steps of:

selecting a plurality of wireless communication systems from a list of wireless communications systems (see pg. 5, [0034-0039]; pg. 3, [0028, lines 10-12]; pg. 4, [0029, lines 94-97]; pgs. 5-6, [0032, lines 1-33]; pgs. 2-3, [0026-0027]; Figs. 7-10), where the mobile station includes a master search schedule in which preferred service provider lists are optimized from the master search schedule;

retrieving frequency, system identification, and mode (e.g., preferred or prohibited) information, stored in the mobile station prior to the selecting, for each of the plurality of wireless communications systems (see pg. 5, [0034-0039]; pgs. 2-3, [0026-0027]; pg. 4, [0029, lines 94-100]; Figs. 3 and 7-10), where information such as frequency spectrum and search schedules are stored in the memory (16) of mobile device (10) for system acquisition in which a subscriber terminal (e.g., mobile station) that has a subscription or account with a communication service provider would have system related information stored (or programmed) in the memory prior to acquisition and the information (e.g., provider list) in

memory is able to be updated (or retrains or reprioritizes) as evidenced by the fact that one of ordinary skill in the art would clearly recognize (see pg. 2, [0011, 0026]; Figs. 2 and 8-10);

detecting, by the mobile station (10), a communications event for a currently selected wireless communications system in response to an acquisition/registration attempt initiated by the mobile station, the currently selected wireless communications system having a corresponding system identifier (see pg. 5, [0034-0039]; Figs. 3 and 7-10);

updating, by the mobile station (10), an entry in the system priority data to reflect historical statistical information regarding the acquisition/registration attempts for the detected communications event based upon respective system desirability levels, the entry including the corresponding system identifier (see pg. 5, [0034-0039]; Figs. 3 and 7-10); and

calculating priority criteria from the system priority data to determine desirability levels for respective wireless communication systems (see pgs. 2-3, [0026-0027]; Figs. 6-10), where the mobile station includes a master search schedule in which preferred service provider lists are optimized from the master search schedule (see pg. 5, [0034-0039]; pg. 3, [0028, lines 10-12]; pg. 4, [0029, lines 94-97]; pgs. 5-6, [0032, lines 1-33]; pgs. 2-3, [0026-0027]; Figs. 7-10);

wherein the priority criteria is stored in a priority data summary table (see pg. 4, [0029, lines 94-97]; pg. 5, [0035, 0039]; Figs. 3 and 6-10).

Regarding **claim 16**, Bamburak discloses the method of claim 15 wherein said historical statistical information further comprise information regarding system acquisition failures and system access failures (see pg. 5, [0034-0039]; pgs. 2-3, [0026-0027]; Figs. 3 and 7-10).



Regarding **claim 17**, Bamburak discloses the method of claim 15 wherein said historical statistical information further comprise information regarding successful system acquisitions, successful system accesses, and signal power measurements (see pg. 5, [0034-0039]; Figs. 3 and 7-10).

Regarding **claim 18**, Bamburak discloses the method of claim 15 wherein the step of updating further comprises calculating, by the mobile station (10), an occurrence rate of the detected event for the currently selected wireless communications system and storing the calculated occurrence rate (see pg. 5, [0034-0039]; pgs. 2-3, [0026-0027]; Figs. 3 and 7-10).

Regarding **claim 19**, Bamburak discloses the method of claim 15 wherein each entry in the system priority data includes a timestamp and wherein the entries in the system priority data are deleted after a certain duration of time (see pg. 5, [0034-0039]; Figs. 3 and 5-10), where the frequency is counted and have time-weighted registrations in which the deletion would be inherent when a frequency is prohibited as evidenced by the fact that one of ordinary skill in the art would clearly recognize.

Regarding **claim 20**, Bamburak discloses the method of claim 15 wherein the step of calculating further comprises calculating, by the mobile station (10), a priority metric based on a plurality of priority criteria, the priority metric representing the likelihood that an attempt to acquire and register with a corresponding wireless communications system will be successful (see pg. 5, [0034-0039]; Figs. 3 and 5-10).

Regarding **claim 21**, Bamburak discloses a mobile station (10) (see Fig. 3) comprising:

a memory (16), in the mobile station (10), storing a preferred roaming list, system priority data, and a priority data summary table (see pg. 2-3, [0026-0027]; pg. 5, [0034-0039]; Figs. 3 and 8-11), where information such as frequency spectrum and search schedules are stored in the memory (16) of mobile device (10) for system acquisition in which a subscriber terminal (e.g., mobile station) that has a subscription or account with a communication service provider would have system related information stored (or programmed) in the memory prior to acquisition and the information (e.g., provider list) in memory is able to be updated as evidenced by the fact that one of ordinary skill in the art would clearly recognize (see pg. 2, [0011, 0026]; Figs. 2 and 8-10);

the preferred roaming list including a first plurality of system identifiers and corresponding acquisition parameters (see pg. 2-3, [0026-0027]; Figs. 3 and 9-11); and

processing circuitry (14), in the mobile station (10) (see pgs. 2-3, [0026-0027]; Figs. 3 and 6-10), for:

maintaining the system priority data in response to acquisition/registration attempts by the mobile station (10) with wireless communication systems, the system priority data including historical statistical information regarding the acquisition/registration attempts by the mobile station (10) (see pg. 5, [0034-0039]; pg. 3, [0028, lines 10-12]; pg. 4, [0029, lines 94-97]; Figs. 8-10);

calculating priority criteria from the system priority data to determine desirability levels for respective wireless communication systems (see pgs. 2-3, [0026-0027]; Figs. 6-10), where the mobile station includes a master search schedule in which preferred service provider lists are optimized from the master search schedule (see pg. 5, [0034-0039]; pg. 3,

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[0028, lines 10-12]; pg. 4, [0029, lines 94-97]; pgs. 5-6, [0032, lines 1-33]; pgs. 2-3, [0026-0027]; Figs. 7-10);

wherein the priority criteria is stored in the priority data summary table (see pg. 4, [0029, lines 94-97]; pg. 5, [0035, 0039]; Figs. 3 and 6-10);

selecting, by the mobile station (10), a group of wireless communications systems from the list in accordance with a predetermined system selection procedure, the group of wireless communications systems having a first system acquisition order (see pg. 5, [0033, lines 1-4, 21-23; 0034]; pg. 3, [0028, lines 10-12]; Figs. 8-10);

reprioritizing, by the mobile station (10), the group of wireless communications systems in accordance with the priority criteria stored in the priority data summary table, the reprioritized group of wireless communications systems having a second system acquisition order based upon respective system desirability levels (see pg. 5, [0034-0039]; Figs. 8-10).

Regarding **claim 24**, Bamburak discloses the mobile station of claim 21 wherein the processing circuitry (14) measures the power (e.g., strength or amplitude) of a received signal corresponding to the currently selected wireless communications system and store the measured power (e.g., strength or amplitude) in the system priority data (see pgs. 5-6, [0032, lines 1-33]; pg. 5, [0034-0039]; pg. 3, [0028, lines 10-12]; pg. 4, [0029, lines 94-97]; Figs. 6-10), where the mobile station (10) uses a received signal strength search (RSS) routine.

Regarding **claim 25**, Bamburak discloses the mobile station of claim 21, wherein the processing circuitry calculates the signal to noise ratio  $E_c/I_o$  of a received signal corresponding to the currently selected wireless communications system and store the calculated signal to noise ratio  $E_c/I_o$  in the system priority data (see pgs. 5-6, [0032, lines 1-

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33]; pg. 5, [0034-0039]; pg. 3, [0028, lines 10-12]; pg. 4, [0029, lines 94-97]; Figs. 6-10), where the mobile station (10) uses a received signal strength search (RSS) routine in which the signal to noise ratio would be inherent as evidenced by the fact that one of ordinary skill in the art would clearly recognize.

### ***Response to Arguments***

4. Applicant's arguments with respect to claims 1-2, 7-21, and 24-25 have been considered but are moot in view of the new ground(s) of rejection necessitated by the amended language and/or new limitations.

In response to applicant's arguments, the Examiner respectfully disagrees as the applied reference(s) provide more than adequate support and to further clarify (see the above claims for relevant citations).

5. The Examiner requests applicant to provide support (e.g., page(s), line(s), and drawing(s) as well as comments) for any further amended claim language.

### ***Conclusion***

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to WILLIE J. DANIEL JR whose telephone number is (571)272-7907. The examiner can normally be reached on 8:30-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Appiah can be reached on (571) 272-7904. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/WJD, Jr/

WJD,Jr  
04 August 2008

/Charles N. Appiah/  
Supervisory Patent Examiner, Art Unit 2617